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METROPOLITAN PLANNING AND DEVELOPMENT IN BOSTON AND ITS ENVIRONS

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BOSTON, CHAMBER OF COMMERCE.

COMMITTEE ON MUNICIPAL AND METROPOLITAN AFFAIRS
COMMITTEE ON PUBLIC UTILITIES

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This report on METROPOLITAN PLANNING AND DEVELOPMENT IN BOSTON AND ITS ENVIRONS has been prepared by the Committee on Municipal and Metropolitan Affairs and the Committee on Public Utilities of the Boston Chamber of Commerce, jointly. It has been approved by the Board of Directors, who have given the committees authority to urge the formation of a permanent Metropolitan Planning Board, substantially as outlined in the recommendations.

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METROPOLITAN BOSTON
(as defined by Chapter 92 of the General Laws)
Population, 1920—1,658,936

Metropolitan Planning and Development in Boston and Its Environs

A new crisis is now arising in the Metropolitan District created by traffic which cannot find an outlet. On our broken system of main thoroughfares and inadequate local railways, the business of the growing district cannot be accommodated. It lies beyond the power of any one municipality to set these matters right.

Evidently the time has come when in the interest of public safety, convenience, and economy, a Metropolitan Board should be delegated to undertake systematic planning in cooperation with the local boards. The Boston Chamber of Commerce has attempted to outline the delegation of powers necessary to undertake the needed planning, as set forth below.

Over twenty-five years ago, when it became apparent that the interests of Metropolitan Boston required that the water supply, sewage disposal, and parks be handled by unified treatment, rather than by cities and towns acting independently, metropolitan boards were created.

We believe that the success of this plan warrants its extension to another important branch of public works—the planning and construction of projects of a metropolitan character connected with vehicular—and electric railway transportation.

As was the case with the water supply, sewage disposal, and parks, this function of transportation has also outgrown the limits of individual communities. As a result, lack of co-ordination among the forty municipalities of Metropolitan Boston seriously hampers the efforts of local authorities to plan for the future development of their communities and to execute the necessary public improvements.

The determination of a useful system of main thoroughfares for the district as a whole would also be of great value to the cities and towns in determining the sites for public buildings, including fire stations, police stations, school houses, and other structures whose access to main transportation lines or to main thoroughfares is essential.

We believe the time has come when a strong and concerted effort must be made to obtain unity of administration on a metropolitan basis in handling this problem.

Years of agitation to add this to the other metropolitan functions have failed. The impelling necessity for the move has never been so clearly understood as today. Furthermore, there is now presented an

exceptional opportunity, through the study being made by the Department of Public Utilities, to offer recommendations that would accomplish the desired co-ordination.

In the last session of the Legislature the Chamber presented the following Resolve:

"RESOLVED: That the Metropolitan District Commission, the Department of Public Utilities, the Department of Public Works and the Division of Housing and Town Planning of the Department of Public Welfare, shall review the traffic and transit conditions in the Metropolitan District, and shall report to the Governor and General Court on or before the first day of January, 1923, with recommendations as to the advisability of creating a permanent Metropolitan Planning Board, either as a separate department or within an existing department, which would coordinate the activities of local Planning Boards in the Metropolitan area and deal in an advisory capacity with the problems of the future development of the area, and especially the problems of the relief of present and future congestion caused by foot, vehicle and rail traffic, which because of their metropolitan character, do not fall within the scope of local planning activities."

The Legislature acceded to the general suggestion made by the Chamber and by other organizations and individuals, by passing a resolve which directed the Department of Public Utilities to make a study of this subject (and also of a number of specific street railway problems) and report to the 1923 General Court. The part of the resolve dealing with this subject reads as follows:

"The department shall investigate transportation service and facilities within the metropolitan district and such other cities and towns as may be determined by the department, and the coordination of such service upon highways, waterways, railroads and street railways; what, if any, use of existing factities of carriers by one or more of such methods can and should be made by others; the manner of effecting such co-relationship and what improvements and new facilities should be provided for a comprehensive and co-ordinated development of transportation for said district; and the relation of such highways, waterways, railroads, and street railways in the commonwealth. It shall make such maps, plans and estimates for costs as may be needed for its investigations and reports and may employ such assistants therefor as it deems necessary. The other departments and boards of the commonwealth and the street commissioners, planning boards and other officials of cities and towns comprising said district may, and upon request of the department shall, consult with it and furnish all facts and information re uested within their knowledge or control."

The Chamber's Committees on Municipal and Metropolitan Affairs and on Public Utilities have studied considerable data and a large number of previous reports upon the subject and have conferred with interested individuals. The recommendations based on this study follow:

1. That a permanent Metropolitan Planning Board be formed either as an independent body or as a division of the Metropolitan District Commission to make a continuous study of the metropolitan problems of traffic and transportation by foot, vehicle, rail and water in the forty cities and towns comprising Metropolitan Boston as defined by statute;

to devise and recommend ways in which such traffic and transportation can be improved and co-ordinated, and congestion relieved; and to confer with the local planning agencies in the Metropolitan District with regard to such projects as are not of a distinctly local character.

2. That power be given to the proposed Metropolitan Planning Board, whether an independent body, or a division of the Metropolitan District Commission, to Tay out and construct such roads, bridges, and other facilities within the Metropolitan District as are, in the opinion of the Board (or Commission) of a metropolitan character and of vital importance to the handling of traffic within the district, and to provide for payment for the same by the issue of bonds of the Commonwealth which should be replaced by apportionment among the cities and towns of the district.

METROPOLITAN AREAS

The following extract from the report of the temporary Metropolitan Plan Commission created in 1911, gives a good picture of the situation in Metropolitan Boston:

"There is no district in the world where there are so many independent communities in so small an area, united so intimately in commerce and industry and in all of those things which make us neighbors to each other, as the territory of the 38 cities and towns of our Metropolitan District. In everything except their political independence they are like the wards of a great metropolis. Yet this homogeneous community acts in all but a few public functions in 38 independent, unrelated, disjointed parts without the advantage of acting as a whole and without giving each locality the benefit of the strength and intelligence of all the other localities."

Hon. Elihu Root, speaking before a meeting held by the Trustees of the Russell Sage Foundation on the proposed regional plan of New York and its Environs, expressed the same general thought as follows:

"A city is a growth. It is not the resu't of political decree or control. You may draw all the lines you please between counties and states, a city is a growth responding to forces not at all political, quite disregarding political lines. It is a growth like that of a crystal responding to forces inherent in the atoms that make it up."

Recognition of the existence of these "greater cities" is expressed by the Federal Bureau of Census. In the 1920 report, it states:

"Immediately beyond the political limits of many cities, and connected with them by rapid transportation systems, are densely populated suburban districts, which industrially and socially are parts of the cities themse ves, differing only in the matter of governmental organization."

The Census Bureau has presented a table analyzing the population of these groups of cities and towns which must be considered entities. As a common standard for comparison the Bureau has taken *central cities* having populations of 200,000 or over and has computed the population of cities and towns in the adjacent territory within ten miles of the boundaries of the central city. (See Appendix A)

This table shows that, while Boston's population is 748,060, the metropolitan area surrounding it has a population of 1,054,260, making a total metropolitan population of 1,801,320. Excepting New York, no other city has so large a population outside its boundaries. The "outside population" is 121 per cent of the population of Boston proper. Pittsburgh is the only other city where the "outside population" exceeds that of the central city, but the local conditions are entirely different from those in Boston.

EXAMPLES OF THE LACK OF CO-ORDINATION

Specific instances of the necessity for metropolitan action in the planning and constructing of highways are numerous. A few are given below as examples:

- 1. Boston has no adequate direct approaches from the North Shore or the South Shore. They have been urged for decades. However, it would be necessary to lay them through several cities and towns, and the absence of a central body to plan or perform the work has been the main reason for the failure to undertake these projects.
- 2. In 1920, the Legislature asked the County Commissioner of Middlesex County to report upon the widening of Bridge Street from Lechmere Square to the Somerville boundary line. The Commissioners reported that this widening ought to be made, as Bridge Street was but 40 feet wide and Somerville Avenue was 80 feet wide, and the two streets furnished a direct means of communication to Somerville and beyond. However, they felt that the project would be futile because of the tangled set of narrow streets at the Boston end of the street that could not handle any additional traffic. In other words, it is not alone a question of Bridge Street in Cambridge, but of Leverett Street and its connections in Boston as well.
- 3. Brookline contemplates the construction of a very necessary radial thoroughfare parallel to, and next south of Boylston Street. The purpose of this highway would be for a connection with Needham through Newton. Brookline hesitates to lay out money because the success of the project depends upon its continuation by Newton at the Brookline-Newton boundary and subsequently by Needham at the Newton-Needham boundary. The money would be partly wasted if the street were not properly connected with Newton and then carried through to Needham. With three communities acting independently, there is too great a chance of failure.
- 4. To quote from that part of the study of Arthur A. Shurtleff in the Metropolitan Improvements Commission Report (1909) dealing with circumferential highways:

"Lack of adequate connection is present on every hand. The Cottage Farm Bridge has no good southern outlet; Brookline has no satisfactory connection by road with Cambridge or Cambridge with Malden, or Malden with Revere; Winthrop is cut off from Revere by the impossible gradients of Beachmont; . . . Needham is cut off from West

Newton except for vehicles which can climb the severe gradients of Chestnut Street. Each town has a cry of distress, and yet all are helpless, because only with extensive co-operative action among the towns could improvements be assured worthy of the expenditure of money. It remains for the district as a whole to provide this co-operative possibility."

- 5. In discussing the radial thoroughfares, Mr. Shurtleff gave the following example:
- "... The narrowness of Main Street in Malden is a hardship to Wakefield, Stoneham and Melrose upon the north, and to Everett, Charlestown and Beston upon the south, inasmuch as the difficulty of passing through this narrow, crowded thoroughfare cannot be obviated readily by following any other direct route. Similar conditions exist in Lynn, Swampscott, Revere, Charlestown, Medford and in many other localities, including, as we well know, Boston proper."

The conditions described in this 1909 report are present in greater degree today.

STREET RAILWAYS

In the case of street railways, we again find there is no comprehensive planning for future development. In the next decade the present facilities will be sorely taxed, and many problems of organization, subway extensions and new rapid transit facilities, while pressing today, will be even more urgently needed.

Of particular interest at the present time is the scheme for the future development of rapid transit in Boston recently prepared by the Board of Trustees of the Boston Elevated Railway Company, and offered, not as a definite and final proposal, but rather as a basis for discussion of the question.

In the words of the Chairman of the Board, "the time has arrived when positive steps should be taken to secure in the future only such extensions of the rapid transit system as form part of a perfected general plan of development, so that the construction of each extension will be determined with reference to the nature and capacity of existing lines which furnish in a sense the trunk of the tree from which the lines divide"

Taken in its entirety, the scheme shows new rapid transit lines, either by tunnel or along new "reserved" speedways on the surface, which would approximately double the rapid transit system now existing in Boston. It calls for an additional outlay of about thirty millions. (See Appendix I)

The trustees pointed out, in presenting this scheme, the importance of some permanent central body, such as is recommended in the report, to consider the whole question of the future development of rapid transit lines serving the whole district as a unit.

PLANNING BY CITIES AND TOWNS IN THE DISTRICT

The principle of city planning seems to be well accepted in Metropolitan Boston, but local planning boards cannot function upon the obviously metropolitan problems. Their local work is impaired because of the lack of a central planning body.

Twenty-three cities and towns in the Metropolitan District (out of a total of 40) have active planning boards. They are:

Arlington	Lexington	Wakefield
Belmont	Malden	Walltham
Boston	Melrose	Watertown
Braintree	Newton	Wellesley
Brookline	Quincy	Winchester
Cambridge	Reading	Winthrop
Dedham	Somerville	Woburn
Everett	Stoneham	

One of the first official acts of Mayor Curley was to obtain an annual appropriation of \$10,000 for the Boston City Planning Board, which would be added to its regular annual appropriation of \$7,000. With this money the Board will start work on a comprehensive city plan for Boston. It has engaged Nelson P. Lewis of New York as a consultant and has just commenced the preparation of a zoning ordinance under the supervision of Arthur C. Comey of Cambridge.

The commendable beginning which Boston has made is a strong inducement for the formation of a Metropolitan Planning Board at this time. The Boston board cannot be expected to plan the area outside its boundaries, yet no plan would be complete unless it were for the Metropolitan District. A Metropolitan Planning Board would not duplicate the work of the Boston board nor supersede it. The two boards should work together on the problems within the city limits which are clearly metropolitan in nature.

That these local planning boards are cognizant of the limitations of their work is shown by a letter from Charles E. Gibson, Chairman of the City Planning Board of Newton to the Chairman of the Committee on Public Utilities. It is first-hand testimony of the need for unified treatment of the problem. It reads as follows:

"The Newton Planning Board, in its effort to devise a comprehensive plan for Newton, has been handicapped in some of the larger aspects of its work, particularly in the consideration of transportation problems, by the absence of any Metropolitan planning authority.

"Newton, being in reality part of a great metropolis, our Board has come to feel that it cannot intelligently meet the large thoroughfare problems, except by co-operation with Boston and the other contiguous municipalities. We would welcome the creation of some clearing house or Metropolitan planning board, and we are very glad to know that the Chamber is attempting to assist the general planning of the Met-

ropolitan District as to main thoroughfares. We would like to have you know that we are greatly interested and in full sympathy with what the Chamber has in view, and shall be glad to cooperate with your committee."

WHAT OTHER CITIES ARE DOING

The new conception of "metropolitan" or "regional" planning is claiming the attention of several cities.

A regional plan for "New York and Its Environs" is being prepared by the Russell Sage Foundation. It is probably the most ambitious city planning program ever undertaken. The region embraced in the study is in three states, New York, Connecticut and New Jersey. The population of the area is about 10,000,000. The work contemplated at present is only a study of conditions and not the formation of definite plans.

The outline of the work is as follows:

- 1. ECONOMIC AND INDUSTRIAL: An analysis of the fundamental reasons for the existence of this great center of industry and commerce, its potentialities and the sound limitations on its future development; an inquiry into economic and occupational activities, those that create populous districts and those that follow population; a study of the land within the area, its use and taxation.
- 2. PHYSICAL: The mapping of existing topographical and other physical conditions, including railway and water transportation, harbor, "free port" and terminal facilities, bridges, ferries, main highways, park and recreation spaces, public and quasi-public buildings, and density and distribution of day and night population; the compiling of existing local schemes for improvement.
- 3. LEGAL: A study of existing law as it controls or affects a plan for the area which includes portions of three states; an analysis of the law of zoning, excess condemnation, stabilization of official city maps, shore rights and land under water, and other subjects relating to City Planning.
- 4. SOCIAL AND LIVING CONDITIONS: Studies designed to bring to the attention of the city planners those factors which have direct bearing upon human values and social welfare, and make for healthful and satisfactory housing and home surroundings, efficient work and wholesome leisure time.

The County Board of Supervisors of *Los Angeles* has instituted a "Regional Planning Conference" in which 30 municipalities are represented. This is entirely a voluntary cooperative effort, undertaken on the initiative of the county supervisors. The purpose of the conference is stated as follows:

"In the large metropolitan centers throughout the country there has been a growing consciousness of the interdependence of communities that together constitute the metropolitan district. In different localities this condition has resulted in different evidences of its existence. Frequently it is evidenced in agitation for city and county consolidation.

"At other times it takes different forms but the incentive has seemed always to be the same. The Los Angeles Metropolitan District is not an exception.

"In the City Planning work of Los Angeles city, and presumably in surrounding cities, it was early recognized that large though the city was, the efficacy of its planning work was largely interfered with through limitations imposed by the existence of arbitrary municipal boundaries. Consideration of City Planning problems at once evidenced the fact that the origin of some problems was to be found largely in communities or areas beyond the corporate limits of the city and outside of the municipality's jurisdiction. It was obvious that the solution of problems thus arising was dependent largely to the degree that ecoperation could be effected between the communities jointly contributing to our suffering from the problems.

"P.ominent among the subjects thus considered was that of transportation, with reference both to rapid transit by rail and the ever increasing utilization of the motor vehicle over the boulevards. Another subject of primary importance was the supervision of new subdivisions through the means of which not only Los Angeles, but the whole metripolitan area is rapidly being converted from raw country land into city property. The need for a unification in standardized requirements and standardized procedure in this subject was early manifested. A third subject of the many, and of primary importance, was the matter of sanitation as applied especially to sewage disposal. The interdependence of municipalities in this respect has been, and is increasingly becoming, especially apparent."

The City Plan Commission of *Detroit* has made a plan for parks and boulevards in Detroit and adjoining counties, and also a plan for radial thoroughfares extending to a distance of 25 miles from Detroit. There is no administrative body capable of carrying out these plans, although the authorities in adjoining counties appear to be disposed to enforce them.

The *Buffalo* City Planning Association (a private organization) has considered a broader area than that of the city limits in making its city plan. It has taken a metropolitan area of 200 square miles and "worked from the outside in." The entire "Niagara Frontier" is included in this area. The Association is working for some organized cooperation for the development of Buffalo and neighboring cities and towns, but nothing definite has been accomplished as yet.

In Missouri efforts have been made to secure the passage of a legislative act for the appointment of county plan commissions, but they have failed.

The City Plan Commission of *St. Louis* has been considering certain elements of regional planning in the development of its comprehensive city plan. However, there is nothing official to this work, and while some of the smaller towns in St. Louis county (of which the City of St. Louis is not a part) have undertaken a little city planning work, there is now no definite unified control of physical improvement or planning.

Philadelphia obtained a "Suburban Metropolitan Planning Commission" in 1913, by legislative enactment, but in 1915 it was abolished.

In 1921 the *Cleveland* Metropolitan Planning Commission was organized for the purpose of developing a thoroughfare plan for the Cleveland Metropolitan area and of controlling platting so far as possible.

This is a voluntary organization made up of nearly all of the municipalities in Cuyahoga County. Each member municipality agrees to submit all allotment plats to the Commission for recommendation before approving them for record, Contributions to the expenses of the Commission are in proportion to the tax warrant. However, shortly after the commission commenced to function, the Cleveland City Plan Commission, which represented the City of Cleveland, was refused adequate appropriations and was unable to contribute its share to the Commission, and the other communities refused to contribute under the circumstances, leaving the Metropolitan Commission without funds. So, although the organization of the Metropolitan Commission has been fully affected, it has not been able so far to do any constructive work.

It will be noticed that except for the abortive attempts in Philadelphia no official metropolitan planning boards have been formed in any of the areas mentioned above. Private or official initiative have been responsible for the results. In Boston the situation is different. We have a more clearly defined metropolitan district which is recognized by law and the precedent of approaching problems of this nature on a metropolitan basis has been established. An official metropolitan board in this district, created by statute, would be preferable to an unofficial voluntary body.

HISTORY OF THE MOVEMENT FOR A METROPOLITAN PLAN

In the past eighteen years, seven unsuccessful attempts have been made to obtain concerted action in the planning of Metropolitan Boston.

In March, 1904, a bill was reported to the Legislature providing for a commission to report on a "systematic plan for adequate and convenient thoroughfares in the Metropolitan District, and upon a method of executing such plans if found advisable." In his annual message, Governor Bates urged the creation of such a commission. Owing to the fact that at about the same time an appropriation of \$6,000,000 had been made for park purposes, and to a general fear lest the District might become involved in expenses which it was unwilling to consider, no matter how urgent the necessity, this bill was referred to the next General Court.

In 1906 a similar bill was prepared by the Governor and Mayor of Boston, but the matter then reached no definite form.

A resolve passed in 1907 authorized the appointment of a Commission on Metropolitan Improvements. This body was authorized to:

"Investigate and report as to the advisability of any public works in the metropolitan district which, in its opinion, will tend to the convenience of the people, the development of local business, the beautifying of the district, or the improvement of the same as a place of residence. It shall consider the establishment of a systematic method of

internal communication by highways, the control or direction of traffic and transportation, and the location of such docks and terminals as the interests of the district may demand."

The members of the commission were: Benjamin N. Johnson, Henry B. Day, Desmond Fitzgerald and Robert S. Peabody. The report, submitted in March, 1909, fills a volume of 315 pages, with scores of maps and diagrams. The subjects discussed were railroads and terminals, docks, the metropolitan plan (a system of highways), a civic center, waterways and the waterfront of Boston Bay.

The commission found that the question of transportation was paramount to all other problems facing the district, and furthermore that transportation efficiency was largely a terminal problem. It explained that its studies were preliminary, and suggested that a state commission succeed it "with no other duty than the working out of this great transportation problem."

Regarding rapid transit, the commission was unable to reach any definite conclusions, but recommended that the study of transit problems be vested in the Boston Transit Commission (now out of existence) with enlarged powers.

In the matter of internal communication by highways, the comission retained Arthur A. Shurtleff, who submitted a complete study of every city and town in the District and recommended many needed improvements. The views of the commission on this point are set forth in Appendix B. Its recommendation was that:

"To secure a wider view of the field of endeavor, and a more perfect coordination of their duties, as well as for purposes of economy, a new consolidation similar to that of the water and sewerage boards might now be effected, thereby constituting a new metropolitan commission, to assume not only the remaining duties of both these boards, but at the same time to take in hand the highway problems of the district."

The Legislature of 1909 responded to the report of the Commission on Metropolitan Improvements by passing Chapter 113, Resolves of 1909. This directed the Board of Railroad Commissioners, the Board of Harbor and Land Commissioners, the Boston Transit Commission and the Metropolitan Park Commission to act as a joint board, and supplement the work of the commission by selecting and advancing such of its suggestions and adding such others as seemed to call strongly for immediate and definite action.

In the matter of systematic method of internal communication by highways, the joint board supported the point of view of the previous commission. It recommended that:

"the entire matter of the investigation, supervision and decision incident to providing such a system of metropolitan highways be delegated to some continuing board, with adequate authority, and with more time for its work than that allowed to the Joint Board for its report. It does not seem wise, however, that this recommendation should result in the creation of a new board. Further recommendation is there-

fore made that the Board to which these matters are delegated should be one of the existing State or Metropolitan boards, or a board made up of two or more such boards,, or of members from such boards."

The proposed bill supporting this recommendation provided that the board should prepare a plan designating the existing highways which, in its opinion, should be classed as metropolitan ways, and the lines for extensions of these highways and for new highways necessary to a system of metropolitan ways.

The joint board suggested that the report of the proposed board be submitted to the 1912 Legis'lature and if it should then seem wise "to make permanent provision for a system of metropolitan highways. It be done under a bill creating a permanent Metropolitan Highway Board, and giving authority to such board to continue the investigations already made, and to designate by plan duly recorded the highways and extensions or additions thereto which it deems necessary for a system of metropolitan highways; and to provide for their location and construction, and for all these purposes to maintain offices and employ assistants and incur expenses within the limit of appropriations, the same to be assessed upon the several cities and towns of the district according to valuation; and that after recording of such plan no action shall be taken by 'local or other authorities in regard to alterations or extensions of the highways or new highways along the lines designated without the approval of the highway board."

The 1911 Legislature continued the work of investigation by passing Chapter 84, Resolves of 1911, which authorized the appointment of a Metropolitan Plan Commission, to make an investigation into the matter of a metropolitan plan for the metropolitan district and report to the 1912 Legislature upon the feasibility of such a plan, together with such recommendations as it may see fit to make relative to the manner in which such a plan should be carried out. The resolve further defined a metropolitan plan as "a plan for coordinating civic development."

Messrs. Edward A. Filene, J. R. Coolidge, Jr., and John Nolen were appointed as members of this commission. They strongly recommended a permanent Metropolitan Plan Commission whose duties would be:

- 1. To collect the data for a metropolitan plan through a systematic consultation with all the local authorities, using surveys by them and by the public commissions and making special surveys of its own.
- 2. To work out and publish from time to time a comprehensive serial plan for the Metropolitan District, setting forth its present and probable future condition as regards main thoroughfares, transportation lines, and facilities of every sort properly coordinated; sites for public buildings and open spaces, the utilization of which would be of advantage to the several communities within the district, considered with due regard to their relation to the district and to each other.
- 3. To study questions of metropolitan scope that do not fall within the province of any existing agency, such as, the prevention and re-

lief of congestion, whether of population or of traffic, the better control of fire hazard, the better distribution of areas and of buildings for the several purposes of residence, manufacturing, trade and transportation, the better coordination of public transportation facilities, and the best methods of financing and assessing the cost of public improvements.

4. To examine all plans by public authorities before final steps toward execution are actually taken, having right to express approval or disapproval and suspend execution for not more than one year to effect revision.

The important parts of the report submitted by this Commission are summarized in Appendix C.

The committee of the 1912 Legislature that considered the report of the commission reported a bill "extending its authority and term of office," but the House Committee on Ways and Means reported "ought not to pass," and the bill was rejected in the House.

In 1914 the Legislature authorized the Public Service Commission to make a further study of street railway and railroad service within the Metropolitan District, and to report to the 1915 Legislature. The report of the commission was duly submitted and referred to the next General Court by the House.

In 1915 Mayor Curley petitioned the Legislature for the appointment of a commission to study one of the most important phases of metropolitan planning,—"the whole subject of terminal facilities and the improvement of facilities for the transportation of freight in the Metropolitan District." Governor Walsh supported this request in a special message to the Legislature, in which he stated that the late John N. Cole, under the direction of Mayor Curley, had been engaged in a thorough study of the subject which he believed should be carried on by an official commission.

The Legislature passed a resolve for the appointment of a "Terminal Commission." The report of this commission was presented to the 1916 Legislature. It involved a complete plan for the consolidation and improvement of freight terminal facilities.

The Legislature also consigned this report to the next General Court. After six years of inactivity the movement was revived by the presentation of the resolve to the 1922 Legislature by the Boston Chamber of Commerce, of which the present study by the Department of Public Utilities is the result.

THE GROWTH OF OUR PROBLEM

It is interesting to notice the growth of the district since metropolitan planning was first agitated in 1904, eighteen years ago. At that time there were 3,772 automobiles in the State; today there are 450,000. The population of the district has increased 30.6 per cent from 1,269,682 to 1,658,936. The annual number of revenue passengers carried by the Boston Elevated Railway has increased 36.6 per cent, from 241,681,945 to 337,552,080. Appendices D, F and G present these figures

in diagram form. They show clearly that the problems of the district, while deemed pressing in 1904, have reached alarming proportions today.

Metropolitan Boston cannot afford to continue for another eighteen years without metropolitan action in the matter of transportation, The district can no longer ignore the fact that the interests of every part are inseparably involved in the interests and welfare of every other part. There must be a permanent authority to conceive and carry out metropolitan projects.

HOW SHOULD THIS NEW FUNCTION BE PERFORMED?

The notable studies of metropolitan improvements made in the past, such as that of the Metropolitan Improvements Commission, have failed because they were made by temporary Commissions and assigned to busy legislative committees that had no opportunity to consider them properly. Their usual fate has been "reference to the next General Court" which, in turn, never considered them. The fault has been that there was no permanent authority to plan and execute the projects.

On the other hand, the splendid record of accomplishment of the Metropolitan Park, Water and Sewer Boards was made because they were continuing bodies that planned and executed the projects necessary to the performance of their duties. The achievements of these boards, now merged into the Metropolitan District Commission, point the way in which other metropolitan problems can best be handled. (See Appendix H)

In the present situation there appear to be two urgent needs: First, that there should be a commission for the metropolitan district with a sufficient engineering and secretarial force so that it can, using the material accumulated in the engineering departments of the state commissions and of the street commissioners, park commissioners and planning boards of Boston and other cities and towns produce in connection especially with the Boston Planning Board, a plan for the metropolitan district of Greater Boston. It does not appear to be especially material whether such commission should be composed of 3, 5, or 7 persons, and whether these ought to be appointed by the governor, or whether there should be a minority appointed by the mayor of the city of Boston, but it is important that there should be some general permanent clearing house to which the authorities of the cities and towns constituting the district could appeal to find out the best advice available in the improvement of their transportation and the economic and efficient layout of their public buildings. The Chairmen of Public Works, Public Utilities and Metropolitan District Commission might be members ex officio of the Metropolitan Planning Board, if constituted as an independent body.

The second urgent need is having a body, metropolitan in scope, which will have the power to lay out and construct necessary roads,

bridges, and other facilities that will mitigate the present intolerable congestion of transportation within the district and, it is hoped, prevent the growth of other centers of traffic congestion, such as now affect the body politic in the business center of Boston, and in such local centers as, for example, Central Square, Cambridge and the centers of Arlington, Medford, Malden and others.

This power of constructing such facilities as the proposed board shall consider vital to the transportation of the metropolitan district might be given either to this board as an independent body or else to the existing District Commission. It would seem less desirable to give it to the Department of Public Works, since the policy of that department is not to build any substantial length of state roads within the limits of the cities but rather to spend its money on the poorer, less populous parts of the commonwealth. Furthermore the division of highways of the Department of Public Works is not authorized to lay out state highways on its own initiative but may do so only on petition of the local governmental agency, either county, city or town. Such petitions have been rare in the Metropolitan District. Moreover the Division is a state-wide body and is already fully occupied with its work in all parts of the State.

If this function were given to the District Commission, thereby considerably increasing its work, it would necessarily involve making the four adjunct commissioners, who now give a small amount of their time to the work of the commissions, real associate commissioners like the four associates of the Public Works Department.

18

APPENDIX A

"METROPOLITAN DISTRICTS IN THE UNITED STATES"

U. S. BUREAU OF THE CENSUS, 1920

(Arranged According to the Population of Adjacent Territory)

Total	Population	7.674.349	1.801.320	1,216,464	2,428,728	3,201,301	551,502	880,653	681,287	1,014,457	1,181,057	900,921		951,579	623,865	340,985	540,702	305,696	546,822	814,395	279,235	401,065	329,246	383,324	679,864		367,317	294,248
Population of	Adjacent Ter.	2,414,301	1,054,260	628,121	604,949	499,596	313,907	303,980	280,040	241,560	187,379	177,984		154,738	117,090	106,094	103,131	97,261	89,675	80,569	78,619	76,655	70,958	68,012	64,584		53,123	51,084
Population	of City Proper	5,260,048	748,060	588,343	1,823,779	2,701,705	237,595	576,673	401,247	772,897	993,678	506,876)	216,261)	796,814	506,775	234,891	437,571	208,435	457,147	733,826	200,616	324,410	258,288	315,312	380,582)	234,698)	314,194	243,164
Acreage in	Adjacent Ter.	684,155	364,146	473,706	563,409	471,027	260,202	707,833	482,282	417,317	246,067	325,752		315.495	281,328	458,156	528,757	334,144	203,334	381,888	347,949	556,544	400,300	344,128	573,636		437,648	318,880
Acreage in		New York,191,360																										Toledo

APPENDIX B

SUMMARY OF REPORT OF

THE METROPOLITAN IMPROVEMENTS COMMISSION 1909

As the result of a resolve passed by the Legislature in 1907, a Metropolitan Improvements Commission was formed:

1. To investigate and report as to the advisability of any public works in the Metropolitan District which would tend to the convenience of the people, the development of local business, the beautifying of the district, or the improvement of the same as a place of residence.

2. To consider the establishment of a systematic method of internal communication by highways, the control or direction of traffic and transportation, and the location of such docks and terminals as the

interests of the district might demand.

3. To recommend the method of executing and paying for any improvements suggested, to make such maps, plans and estimates of cost as might be needed for the investigation or the presentation of the conclusions.

The Commission was authorized to employ such assistants as it deemed necessary, and was given an appropriation of \$25,000, which was later supplemented by one of \$10,000. A mistake was made, however, which precluded the maximum benefit being obtained from the work of the Commission. This was that the powers and duties of the Metropolitan Improvements Commission should terminate with the submission of its report.

The Commission took up the work in a thorough-going and far-seeing manner. With the appropriation and powers granted, it was able to employ competent engineers to make careful surveys of the different phases of the work involved.

These surveys were:

The Metropolitan Plan (Highways, Parks, etc.), by Arthur A. Shurtleff.

The Waterfront of Boston Bay by Sylvester Baxter.

Docks, by Desmond Fitzgerald.

Railroads and Terminals, by George R. Wadsworth.

A New Civic Center, by Robert S. Peabody & A. A. Shurtleff.

Waterways, by Richard A. Hale.

Finances, by Henry B. Day.

In 1909 the Commission submitted a very comprehensive report based on these surveys.

Its views upon metropolitan planning for highways, etc., were as follows:

"The Commission is led to believe that officials and engineers of municipalities throughout the district would all heartily welcome cooperation with a responsible authority, which would confer with them, offer advice and either be invested with power to execute highway connections or at least be in a position to appeal promptly and effectively to the Legislature for aid. If the public also felt that the whole road scheme of the district were under surveillance, and that an authority existed which would listen to its appeals and from which it might expect advice, the Commission believes the body entrusted with such service would become invaluable.

"It should also be the duty of the board entrusted with this road work to secure such codification and amendment of the laws relating to the laying out and construction of ways as would render it more practicable and expeditious for the community as a whole to secure desirable roads whenever the vacant land of a district is cut up by private owners with streets to subdivide such land into house lots. At the present time the control of the towns over these land subdivisions is so weak that undesirable roads are being created at the rate of hundreds of miles a year. These just miss, by a small margin, being of service to the public, as a whole. Were they under more complete control they could be made of great service without additional cost. Under prevailing methods these inconvenient and ill-advised roads have to be corrected by the public authorities at great expense, and even then they are only sufficient to serve the most primitive needs of the community. It is not too much to demand that the broader rights of

the public in these matters shall prevail."

'The accomplishment of a consolidation of metropolitan authority and development in these highway matters would be permanently and generally beneficial. This will be especially true if it carries with it the cooperation of a council composed of the mayors and chairmen of selectmen in the Metropolitan District. This would in itself be enough to insure the accomplishment of many of the improvements which the commission recommends, for it is impossible to conceive that these two bodies could assemble for the purpose of considering the needs of the district without having the folly of longer neglecting these subjects irresistibly forced upon them. One board would then have in its charge these public improvements throughout the Metropolitan District. It would have the advice, assistance and restraining influence of a council composed of the officials whose duty it is to make up the budgets in all of the thiry-nine cities and towns comprising Metropolitan Boston. The meetings, discussions and even the differing opinions of these bodies would without fail bring out ways in which local conditions could be improved, and create better feeling and cooperation among neighboring communities. United action could thus be taken for the benefit of the whole district. The creation of such a commission, to control all metropolitan highways and to take over the present comparatively light administrative work of the Metropolitan Park Commission and the Metropolitan Water and Sewerage Board (including the now practically completed work on the Charles River Basin Commission, which the Metropolitan Park Commission inherits), would retard no public work. It would give increased efficiency and reduced cost, and at the same time establish the proper foundation for the new development of the resources of the district. . . ."

The recommendations need no lengthy explanation to prove their value at the present time. A brief summary of them follows:

1. Metropolitan Highways, Parks, Water and Sewerage.

The commission felt that its work would be wasted unless it reached the hands of some permanent body, with power to hear applications, press important matters, and criticize poor ones. Because of the need for reduction rather than increase in the number of state boards, the commission did not favor the appointment of a new commission.

It recommended as this central body a consolidation of the then existing Metropolitan Park Commission and the Metropolitan Water and Sewerage Board. At that time these boards had largely completed the creative activities for which they were organized, and were doing largely routine work. They had an intimate knowledge of the District, and consderable experience in highway work, and could readily handle planning.

The Commission also suggested a council of mayors and chairmen of selectmen in the Metropolitan District, to cooperate with the permanent commission and to help in assuring the accomplishment of such improvements as might be suggested.

It is interesting to note that in the consolidation of state departments in 1919, this suggested consolidation was accomplished, but the advisory council was not formed, nor were the powers and duties of the commission broadened as recommended.

2. Local Transit Facilities

The Commission recommended that the study of the final development of an adequate system of rapid transit in and around Boston be vested in the Boston Transit Commission, with enlarged powers.

3. Railroads—Freight Terminals

The Commission pointed out that so far as the problem of bringing the transportation facilities of the city to a proper state of efficiency by improved instrumentality within the Metropolitan District, it must be largely a terminal problem.

Greater Boston should be regarded as a terminal district, and within that district there should be a flexible system of interchange terminals, between different railroads and between railroads and waterfront facilities.

The Commission did not recommend a belt line for Boston, because the problem is primarily a terminal and not a trans-shipping one, and also because such a line placed outside the region of prohibitive cost would be too long to be of real value. The Commission did, however, make certain recommendations which would have given the benefits of a belt line without its local inconveniences. Among these were the development of certain freight yards and relocation of others; a freight clearing yard in Somerville; a marginal railroad in East Boston; a regular system of car floats between the north and south sides of the harbor; and a system of district freight yards to provide for "District Delivery" of cars.

These recommendations were and are of the utmost importance in relation to street congestion in Boston, because the commission believed that if they were carried out, much of the heavy trucking and carting through the streets of Boston would be eliminated.

4. Railroads—Passenger Terminals

The Commission did not recommend a central terminal station, but pointed to the growing necessity for a reconstruction of the North and South Stations (which has not yet been carried out, after a lapse of a dozen years).

In connection with this reconstruction the Commission recommended:

- 1. Revisions of South Station and complete reconstruction of the North so as to bring the trains in on a sub-surface level, with the passenger concourse at street grade.
- 2. Direct connection between the two stations by a four track tunnel.
 - 3. An additional sub-surface station in the market district.

This plan would eliminate clumsy train shifting, and would insure greater flexibility of operation and greater convenience. Of course, it involved a complete electrification of the roads in the Metropolitan District.

5. General Recommendations on the Railroad Situation

The Commission recommended that a special commission be appointed to make a thorough study of the transportation problem.

After the final report of such commission, the recommendations should be worked out under public direction. A terminal company as a private enterprise would not be practical because of the heavy charges they would be forced to make. With the number of railroads entering the city, railroad control would be cumbersome. The best plan according to the Metropolitan Improvements Commission, would be a terminal company, controlled jointly by the public and the railroads. Terminal matters would thus be handled in a way to protect both roads and public.

6. Interior Waterways

With the exception of the Cape Cod Canal and a Brockton and Taunton Canal, the Commission did not feel that interior waterways in the state were practical. In these two cases no recommendations were made because of complete studies by other bodies.

7. Waterfront Development

The Commission expressed the opinion that "the waterfront of the Metropolitan District affords the highest possible opportunity and promise for commercial and industrial development. Nothing further should be done by the public in the way of takings for park purposes or otherwise which will divert any portion of this great waterfront from its potential use for commerce and industry."

The Commission submitted a comprehensive plan for the development of the waterfront, including the keeping of large portions under public control.

8. A Civic Center

The Commission pointed out the importance of a civic center for Boston, and suggested Park Square and Copley Square as possible locations. It did not, however, make any definite recommendations on this matter.

9. Final Recommendation

"Earlier in this report it is recommended that the final studies for the development of a modern terminal system be entrusted to a special commission. It is now further advised that the other recommendations considered in this report be referred to A METROPOLITAN DISTRICT COMMISSION WITH CONCENTRATED AUTHORITY, created by the consolidation as above described. As an adjunct thereto the creation of a Metropolitan District Council, composed of the responsible executive officials of the various Metropolitan communities, is advised."

APPENDIX C

REPORT OF THE

METROPOLITAN PLAN COMMISSION, 1912

The report pointed out the serious congestion of traffic and population in Boston, and the constantly enlarging circle of population, which would result inevitably in congesting the suburbs. It stated that \$40,000,000 has already been spent by Boston on widening and straightening her "still unstraightened streets" and that a metropolitan plan would save the suburbs this cost of haphazard growth.

The following extracts are interesting:

"Nobody pretends that this can be properly done without the guidance of a metropolitan authority which will plan each thoroughfare to every other, will properly design them, and they radiate from the center, and will connect them by cross-district roads."

* * * * *

"The theory of this legislation is to evolve a constructive persuasive and voluntary system of metropolitan cooperation to make improvements that are not sufficiently provided for, and that will be increasingly more difficult and expensive the longer they are postponed."

The benefits of metropolitan planning were outlined as followed:

1. It will reduce the cost of living

- (a) By planning metropolitan development so that it will be more enduring and will promote, not hinder, transaction of 'business.
- (b) By improving and abolishing conditions which make so many citizens a burden rather than a benefit to themselves and to the community.

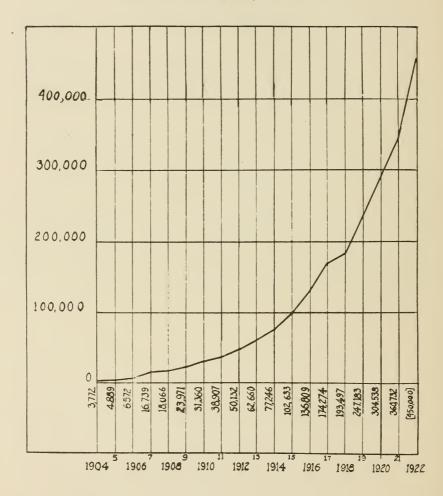
- 2. It will advance, through conscious public action, the commercial and industrial prosperity of the Metropolitan District and the Commonwealth.
- 3. It will result in a planning and coordinating of our public functions so that they may be more efficient in their style to the community.

This commission would consist of five persons, three to be appointed by the Governor, and two by the Mayor of Boston. The chairman would be designated by the Governor and receive \$10,000 per year. The other members would receive \$1,000 annually. The term of office would be five years. The execution of works advocated by the commission would rest with State, County or local authorities. The expenses of the commission would be borne, 10 per cent by the state and 90 per cent by the communities of the district.

The commission would be required, on giving approval to any project, to designate it as an "ordinary" or "extraordinary" metropolitan improvement. If it is the former, 65 per cent of the cost would be borne by the community in which the improvement is physically situated, 25 per cent by other cities and towns constituting the district, in proportions to be determined by a commission appointed by the Supreme Court, and 10 per cent by the Commonwealth. If the improvement is "extraordinary," the community shall pay such proportion, not exceeding 65 per cent, as may be determined by the commission appointed by the Supreme Court; other cities and towns shall pay such sum, not less than 25 per cent as the commission determines; and the Commonwealth shall pay 10 per cent The Supreme Court is directed to appoint three commissioners, not residents of the district, to make the apportionment. The apportionment is to be determined on the basis of benefit in each case and with due account of population, valuation and any other thing which should affect the proportional contributions. The state's proportion of the expenditures would be limited to \$500,000 each year.

APPENDIX D

INCREASE IN AUTOMOBILE REGISTRATION IN MASSACHUSETTS, 1904-1922



APPENDIX E

CITIES AND TOWNS COMPRISING METROPOLITAN BOSTON

(as specified in Chapter 92 of the General Laws) and their Population (1920 Census).

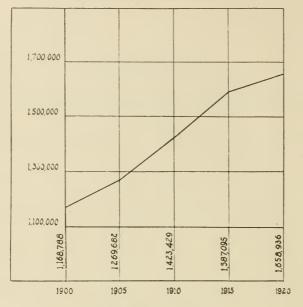
Arlington 18,6	365 Nahant
Belmont 10,7	749 Needham 7,012
Boston	
B.aintree 10,8	
Brookline 37,7	748 Reading 7,439
Cambridge109,6	894 Revere 28,823
Canton 5,9	945 Saugus 10,874
Chelsea 43,1	.84 Somerville 93,091
Cohasset 2,6	339 Stoneham 7,873
Dedham 10,7	792 Swampscott 8,101
Dover 8	867 Wakefield
Everett 40,1	20 Waltham 30,915
Hingham 5,6	304 Watertown 21,457
Hull 1,7	771 Wellesley 6,224
Lexington 6,3	350 Weston 2,282
Lynn 99,1	48 Westwood 1,358
Malden 49,1	103 Weymouth 15,057
Medford 39,0	038 Winchester 10,485
Melrose 18,2	204 Winthrop 15,455
Milton 9,3	382 Woburn 16,574
Total Pop	ulation-1,658,936

NOTE: The population of Metropolitan Boston as given by the Federal Census Bureau is 1,801,320. Seventeen additional cities and towns are included in this area. However, whether the local or the federal area is accepted, Boston's comparative rank as shown in Appendix A would not change.

It is expected that a Metropolitan Planning Board would be for the smaller area as given in Chapter 92 of the General Laws.

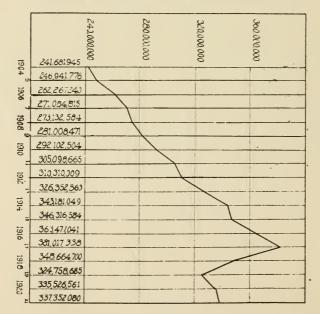
APPENDIX F

GROWTH IN POPULATION OF METROPOLITAN DISTRICT, 1900-1920



APPENDIX G

INCREASE IN ANNUAL NUMBER OF REVENUE PAS-SENGERS CARRIED BY BOSTON ELEVATED RAILWAY COMPANY, 1904-1921



APPENDIX H

THE FORMATION AND GROWTH OF THE METROPOLI-TAN BOARDS NOW CONSOLIDATED INTO THE METROPOLITAN DISTRICT COMMISSION

Sewerage

About thirty-five years ago the rapid growth of the communities in Metropolitan Boston made it evident that within a short time they would outgrow their sewer facilities and would be forced to undertake extensive new construction.

Those concerned with the health and sanitation of Boston and its environs realized that such a growth with the resulting discharge of sewerage in much larger quantities at a number of different places, would seriously inconvenience and might even endanger the health of the district. It was evident to the Boards of Health and other similar bodies that the solution lay in a single trunk line sewer system, fed by the local systems.

As the result of a movement led by the State Board of Health, which culminated in a report recommending the formation of a Metropolitan Sewerage System, Chapter 439 of the Acts of 1889 was passed "to provide for the building, maintenance and operation of a system of sewage disposal for the Mystic and Charles River Valleys."

This act provided for the appointment of a Board of Metropolitan Sewerage Commissioners, to construct and maintain a system of trunk sewers in 18 cities and towns of Metropolitan Boston. The local tributory sewers were to be owned and maintained by the individual communities. At the time of the consolidation in 1919 of the Metropolitan Water and Sewerage Board with the Metropolitan Parks Commission, the number of municipalities served by the Metropolitan Sewers had grown to twenty-six.

Water

The situation in regard to water was similar. The city of Boston and neighboring communities were rapidly outgrowing their water supplies, and would soon have to go farther afield. As there was no chance of finding a sufficient number of adequate places for individual impounding reservoirs, and furthermore as the construction of a large number of parallel systems would entail undue expense, the Boston Water Board and the State Department of Public Health recommended the creation of a Metropolitan Water District to provide for a single

large unified water supply for the Metropolitan District, under a state commission, which would impound the water and deliver it to the local distributing systems.

In 1895 an act (Chapter 488 of the Acts of 1895) was passed creating the Metropolitan Water Board for this purpose. The communities included in the district were those within ten miles of the State House, with certain provisions for ones not having any part of their territory within this radius. But it was left to the individual municipalities to determine whether they should be included in the new district. To date, nineteen have accepted the provisions of this act.

By Chapter 168 of the Acts of 1901, these two Boards were consolidated into the Metropolitan Water and Sewerage Boards which existed until the formation of the Metropolitan District Commission in 1919.

Parks

While the Metropolitan system for parks was in many ways just as important as for sewers and water supply, there was not the urgent and evident need for a park system that applied in the other two cases.

As a result, the method of approach in urging the formation of a Metropolitan Park Board was different. Instead of urging the importance of Metropolitan Boulevards, of parks, and so on, it was pointed out that there were a number of beautiful tracts of land within Metropolitan Boston which could be obtained by the state at low cost, and made into forest or park preserves. If these were left, however, they would in a relatively short time, be taken up by commercial interests and entirely lost to the people.

Chapter 407 of the Acts of 1895 created a Metropolitan Parks Commission to acquire open spaces in Metropolitan Boston as reservations "for exercise and recreation."

Within a short time after it began purchasing land, the Commission came before the Legislature for funds to improve the roads in the preserves, and generally to make them more available for the public. As its policy became evident, it was besieged by cities and towns of the district with requests to take over preserves within their boundaries for preserves. Petitions to the same effect were introduced in the Legislature in such numbers that in 1901 an agreement was reached by members of the Legislature and the Governor that an omnibus bill would be introduced, giving to the Parks Commission a definite sum for purchases, without stipulations as to the places at which it should be used. In spite of this, the next year over twenty special bills were introduced. There are now 37 communities in the Metropolitan Parks District.

THE METROPOLITAN DISTRICT COMMISSION

By 1909 the bulk of the constructive work of this Commission and of the Water and Sewerage Board was completed, and they were occupied chiefly with maintenance and repair. In that year the Metro-

politan Improvements Commission recommended the consolidation of these two bodies into a Metropolitan District Commission, with enhanced powers.

This consolidation was not effected, however, until 1919, at the time of the general consolidation of state bodies into a smaller number of commissions. The new commission was not, however, given the increased powers suggested in 1909, but merely continues the work of maintenance that was carried on by the individual Metropolitan Boards prior to 1919.

Metropolitan Boston, as officially recognized by the State, now comprises forty cities and towns—or all of those in the Metropolitan Park, Water and Sewerage Districts.

Cost of Metropolitan Parks, Waters and Sewers

(From Annual Report of Metropolitan District Commission for 1920) Cost of Construction to Dec. 31, 1920

WATER

Total for construction and acquisition of works to January 1, 1921

\$43,287,875.89

SEWERS

Total for construction and acquisition of systems to January 1, 1921 North System

7,546,657.589,806,442.45 17,353,100.03

PARKS

South System

From Metropolitan Park Loan Fund \$9,246,229.23 From Metropolitan Park Loan Series II 6,632,986.53 Nantasket Beach Loan Fund 705,881.50 Charies River Basin Loan 4,472,747.22

\$21,057,844.48

Total Expenditures to Dec. 31, 1920

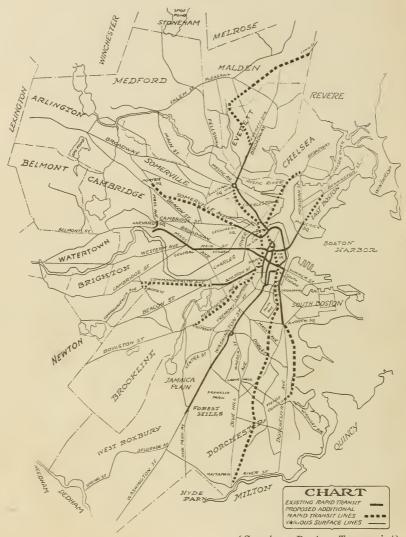
\$81,699,820.40

Maintenance—1	92	31	ĺ
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Water \$812,399.79
Sewers—North Metropolitan System 309,476.17
South Metropolitan System 190,826.44
Parks, etc. 654,190.00

\$1,967,802.40

APPENDIX I



(Courtesy Boston Transcript)

TUNNELLING THROUGH 20 YEARS OF BOSTON'S FUTURE IN RAPID TRANSIT

(Suggested Plan as outlined by the Trustees of the Boston Elevated Railway Company)

Study of the extension of the Dorchester tunnel from Andrew Square to Fields Corner has been completed, and construction may soon be expected. The other extensions shown are suggestions as a basis for discussion.

